

IN THE CLAIMS:

Amendments to the Claims

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (canceled)

Claim 2 (canceled)

3. (previously presented) The pattern inspection method according to Claim 5, wherein said information outputted at the outputting step includes data enabling the classification of the defect.

Claim 4 (canceled)

5. (currently amended) A pattern inspection method , comprising the steps of:

irradiating either a charged particle or a light on a surface of a substrate on which a pattern is formed;

producing an image of said substrate surface by detecting any of a reflected light, secondary electron, reflected electron, transmitted electron, or absorbed electron generated from said substrate as a result of the irradiation;

producing a digital image by subjecting the produced image signal to A/D conversion;

comparing the digital image with a reference image and extracting a defect candidate;

outputting an actual image of the extracted defect candidate and data comprising the location of the defect candidate, via either a storage medium or a network;

storing said outputted actual image of the extracted defect candidate and data comprising the location of the defect candidate;

displaying on a screen in a map format the defect candidate location data outputted via either said storage medium or network; and

displaying on said screen ~~the actual image of a defect candidate a~~ selected from one of the stored actual images of the extracted defect candidates ~~together with said map format on said screen, said displayed actual image of the defect candidate being displayed corresponding to location data which is~~ designated on said screen among the extracted defect candidate data displayed in said map format displayed on said screen.

6. (currently amended) A pattern inspection method, comprising the steps of:

detecting a defect candidate of a pattern by using an inspecting means;

outputting an actual image of the detected defect candidate and data including location information of the defect candidate;

storing said outputted defect candidate actual image and data including location information of the defect candidate in a memory;

displaying the stored defect candidate data on a screen in map format; and

displaying on said screen ~~the actual image of a defect candidate a~~ selected from one of the actual images of the ~~extracted~~ stored defect candidates stored in said memory ~~together with said map format on said screen, said displayed actual image of the defect candidate being displayed corresponding to location data which~~

is designated on said screen among the defect candidate data displayed in said map
format ~~displayed~~ on said screen.

Claims 7-9 (canceled)

10. (original) The pattern inspection method according to Claim 6, further comprising the step of changing threshold value data on said screen, when detecting a defect candidate of said pattern using said inspecting means.

11. (original) The pattern inspection method according to Claim 10, wherein defect candidate location data displayed in map format is updated and displayed in accordance with said changed threshold value data.

12. (currently amended) The pattern inspection method according to Claim 6, wherein, in said step for displaying on ~~the said~~ screen, said defect candidates are classified using the actual images of defect candidates outputted via either said storage medium or network and data comprising the locations of the defect candidates, and location data of the classified defect candidates is identified by classification and displayed in map format on said screen.

13. (currently amended) The pattern inspection method according to Claim 6, wherein, in said step for displaying on ~~the said~~ screen, said defect candidates are classified using the actual images of defect candidates outputted via either said storage medium or network and data comprising the locations of the defect candidates, and location data of the designated defect candidate from among these classified defect candidates is displayed in map format on said screen.

14. (original) The pattern inspection method according to Claim 13, wherein location data of defect candidates of a plurality of classifications designated from among said classified defect candidates is identified by said classifications and displayed in map format on said screen.

15. (previously presented) The pattern inspection method according to Claim 13, further comprising the steps of processing said inputted actual image of said defect candidate and data comprising the location of this defect candidate by said processing means, and thereafter outputting via said network.

16. (currently amended) A pattern inspection method, comprising the steps of:

imaging a substrate on which a pattern is formed;

processing an image obtained by said imaging to detect a defect candidate of said pattern;

outputting an actual image of said detected defect candidate and data including location information of the defect candidate via a network while carrying out the step of imaging said substrate and the step of detecting a defect candidate of said pattern;

storing said outputted actual image of said detected defect candidate and data including location information of the defect candidate in a memory; and

simultaneously displaying, on a screen, said actual defect candidate image and data including the location information of the defect candidate stored in said memory;

wherein, in the step of simultaneously displaying, said defect candidate data of location information is displayed in a map format on said screen and said actual defect candidate image which is simultaneously displayed on said screen is a

~~selected one of said actual defect candidate image which is selected from the stored~~
actual images of the detected defect candidates stored in said memory,
~~corresponding to location data which is designated on said screen among the defect~~
~~candidate data displayed in said map format displayed on said screen.~~

Claims 17-19 (canceled)

20. (original) The pattern inspection method according to Claim 16, further comprising the step of changing threshold value data for detecting a defect candidate of said pattern on said screen.

21. (previously presented) The pattern inspection method according to Claim 20, wherein the location of the defect candidate displayed in map format is updated and displayed in accordance with said changed threshold value data.

22. (previously presented) The pattern inspection method according to Claim 16, wherein, in the step of displaying on said screen, said defect candidates are classified using the actual images of defect candidates and data including location information of the defect candidates outputted via either said storage medium or network, and identically classified defect candidates are displayed in map format on said screen.

23. (previously presented) The pattern inspection method according to Claim 16, wherein, in the step of displaying on said screen, said defect candidates are classified using the actual images of defect candidates and data including location information of the defect candidates outputted via either said storage

medium or network, and defect candidate location data designated from among the classified defect candidates is displayed in map format on said screen.

24. (original) The pattern inspection method according to Claim 23, wherein plural classes of defect candidates designated from among said classified defect candidates are displayed on said screen discriminately from each other in the map format.

25. (previously presented) The pattern inspection method according to claim 5, wherein said map format is displayed at one portion of said screen and said displayed actual image of the defect candidate is simultaneously displayed at another portion of said screen.

26. (previously presented) The pattern inspection method according to claim 25, wherein the one portion and the another portion of said screen are adjacent portions of said screen.

27. (previously presented) The pattern inspection method according to claim 6, wherein said map format and said actual displayed image of the defect candidate are simultaneously displayed at positions adjacent one another on said screen.

28. (previously presented) The pattern inspection method according to claim 27, wherein the one portion and the another portion of said screen are adjacent portions of said screen.

29. (previously presented) The pattern inspection method according to claim 16, wherein said map format and said actual displayed image of the defect candidate are simultaneously displayed at positions adjacent one another on said screen.

30. (previously presented) The pattern inspection method according to claim 29, wherein the one portion and the another portion of said screen are adjacent portions of said screen.